

REMARKS

Reconsideration and allowance of the claims are requested in view of the above amendments and the following remarks. Claims 1, 3–45, 47 and 48 are pending in the application. Claims 1, 3, 5, 16, 35–37, 43, 45–46, and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Eigel–Danielson, US Patent Number 6,301,580 (hereinafter Eigel–Danielson). Claims 3, 6, and 38–39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eigel–Danielson in view of Lezius et al, "TigerSearch Manual," University of Stuttgart, April 5, 2002 (hereinafter Lezius). Claims 17, 19–20, 23–34, 44, and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims

1. Interview Summary

Applicants thank the Examiner for the Examiner's Interview of May 29, 2007. During this Interview, the Examiner and the Applicant's representative discussed a proposed Amendment to the claims. Specifically, the Examiner and the Applicants agreed that the claims could be clarified by replacing the phrase "before execution of a query" with a more descriptive phrase, such as "in response to a received query." The latter expression shows that a step or action is taken in response to a received query.

2. Rejections Under 35 U.S.C. 102

Claims 1, 3, 5, 16, 35–37, 43, 45–46, and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Eigel–Danielson. Applicants have amended claims 1, 36, and 45 to more clearly point out and claim the invention.

a. Independent Claim 1

Eigel–Danielson fails to teach each element of the Applicant's claimed invention. Specifically, Eigel–Danielson fails to teach "based on characteristics of the received query, determining a model of work to be performed during execution of the query."

The Examiner asserts that Column 4, Lines 25–44 "clearly indicates that a model of work is defined (e.g., measuring the amount of work to be done in kilobytes of data to search or number of kilobytes needed to fill a display repository)." Column 4, lines 25–44 state, *inter alia*, that "[v]ariables can be expressed in terms of many types, such as percentages, time elapsed, and bytes of memory." Other alternative embodiments are also identified, such as "that the greater progress of variables can be a maximum value as well as a minimum value."

Applicants have now more clearly specified that the model of work is not dependent upon the characteristics of output format (e.g., percentages, time elapsed, and bytes of memory). These characteristics may or may not play a factor in the presentation of the data to the user, but they do not factor in to the determination of the model of work. Instead, the model of work is determined "based on characteristics of the received query." The Specification provides numerous query characteristics that may result in different models of work, including the "sub-class of queries whose execution plan is a single pipeline" described in the bottom paragraph of Page 8 and depicted in FIG. 4 and the sub-class of queries having multi-pipeline execution plans (e.g., Hash Join and Sort–Merge Join queries described on Page 16 and depicted in FIGS. 8 and 9).

Applicants assert that there is no teaching in Eigel–Danielson of "determining a model of work to be performed during execution of the query" "based on characteristics of the received query." Instead, Eigel–Danielson teaches an "adaptive progress indicator [that] displays the greater progress between a first variable that represents the progress of a search of a data repository and a second variable that represents the progress of

filling a display repository.” Eigel–Danielson, Column 2, lines 10–14. The algorithm supporting the adaptive progress indicator is also depicted in FIGS. 10–12. From this disclosure, it seems clear that the adaptive progress indicator is adaptive only in its presentation of estimates to a user based on a comparison of two or more variables. More specifically, Applicants assert that there is no teaching in Eigel–Danielson of “determining a model of work to be performed during execution of the query” “based on characteristics of the received query.”

Applicants note that one of the variables that Eigel–Danielson compares is a “percentage of the data repository searched.” However, Applicants assert that the manner in which the “percentage of the data repository searched” is calculated is independent of the characteristics of the query received. Specifically, Eigel–Danielson describes in detail how the “percentage of the data repository searched” is calculated (see, e.g., Column 5, line 20 to column 6, line 7), and this methodology does not change in response to a received query. Instead, Eigel–Danielson teaches presenting different information to the user (e.g., percentage of the data repository searched v. percentage of the display cache to be filled) based on a comparison of two or more variables.

Accordingly, claim 1, which recites “based on characteristics of the received query, determining a model of work to be performed during execution of the query,” is patentable over Eigel–Danielson. Claims 3, 5, 16, and 35, which depend from claim 1, are also patentable for at least this same reason.

b. Independent Claim 36

Claim 36 has been amended to recite “a progress indicator that estimates progress based on an estimated amount of work performed at a given point during execution of the query according to an execution plan generated in response to a received query.” The execution plan, generated in response to a received query, is used to estimate an amount of work performed at a given point in time (see, e.g., Page 16 of the Specification). Eigel–Danielson does not address execution plans because Eigel–

Danielson teaches an adaptive progress indicator that adapts based on generated output (not query input). See, e.g., FIG. 11 of Eigel–Danielson.

Accordingly, claim 36 is also patentable over Eigel–Danielson. Claim 37, which depends from claim 36, is also patentable for at least this reason.

c. Independent Claim 45

Claim 45 recites “selecting a model of work corresponding to the execution plan.” For example, a single pipeline model of work may be selected for the execution plan depicted in FIG. 4 (see, e.g., Page 8) and a multi-pipeline model of work may be selected for the execution plans depicted in FIGS. 8 and 9 (see, e.g., Page 16). Eigel–Danielson does not address execution plans because Eigel–Danielson teaches an adaptive progress indicator that adapts based on generated output (not query input).

Accordingly, claim 45 is also patentable over Eigel–Danielson. Claim 48, which depends from claim 45, is also patentable for at least this reason.

3. Rejections Under 35 U.S.C. 103

Claims 3, 6, and 38–39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eigel–Danielson in view of Lezius. Lezius fails to make up for the deficiencies of Eigel–Danielson. Specifically, Lezius fails to teach or make obvious the elements cited above in sections 2(a) and 2(b). Accordingly, claims 1 and 36 are also patentable over Eigel–Danielson in view of Lezius. Claims 3 and 6 and 38–39, which depend from claims 1 and 36, respectively, are also patentable for at least this reason.

4. Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 17, 19–20, 23–34, 44, and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Application Number: 10/813,963
Attorney Docket Number: 307523.01

5. Conclusion

In view of the above amendment and remarks it is submitted that the claims are patentably distinct over the relied upon art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above application is requested. Based on the foregoing, applicants respectfully request that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the applicants' attorney at the telephone number listed below.

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If this response is not considered timely filed and if a request for an extension of time is otherwise absent, applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,

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